



Fact Sheet



Updates to Storm Water Quality Standards in the City of San Diego Land Development Manual

Construction Operations - Advanced Treatment

Introduction

The California Regional Water Quality Control Board issues a storm water discharge permit (Permit) to the City of San Diego. The Permit is under the auspices of the National Pollutant Discharge Elimination System and the U.S. Environmental Protection Agency. The overall goal of the Permit is to reduce the amount of pollutants carried by storm water runoff that enter the City's storm water system. San Diego's storm water system is a combination of pipes and channels that carry runoff to streams, bays, and the Pacific Ocean. Storm water does not go to a final treatment facility before entering these waterways and the ocean.

Why is the Land Development Manual being updated?

The City is in the process of updating its Land Development Manual (Manual) to be consistent with revisions made to the Permit in January 2007. The Manual includes requirements and guidelines for how new construction must be managed and also what measures must be in place at a structure or facility after construction is completed for long term reduction of storm water pollution at the site. Public input is important and valued so that the City can consider viewpoints and ideas on the updates to achieve the goal of reducing storm water pollution and compliance with Permit requirements. The permit lists **advanced treatment** as a requirement.

What is Advanced Treatment?

Advanced treatment is the use of a chemical or mechanical process to remove sediments from water at a construction site. This treatment is typically done in three stages: (1) coagulation; (2) sedimentation, and (3) polishing/filtration. Coagulation thickens unwanted particles in the water, sedimentation causes the thickened particles to settle or sink down in the water, and polishing/filtration stage physically removes any particles that did not settle out.

Why is it considered a method to reduce storm water pollution during construction?

Advanced treatment is a technologically advanced method of reducing sediment typically found in storm water runoff from a construction site. It is a useful application when the targeted pollutants are too small to settle out by gravity, or if there is no space to create a settling pond. Since advanced treatment uses chemicals in the processes, careful application is needed to prevent any adverse effects to the environment. The permit requires advanced treatment for construction sites considered an "exceptional threat to water quality."

References

Regional Water Quality Control Board Storm Water Discharge Permit for the City of San Diego
http://waterboards.ca.gov/sandiego/programs/sd_stormwater.html

City of San Diego Land Development Manual
<http://www.sandiego.gov/development-services/industry/landdevmanual.shtml>

www.ThinkBlue.org

(Please see photos on following page.)

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Advanced Treatment System installed at construction site



Truck-mounted Advanced Treatment System